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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/835,080	04/16/2001	Katsuya Sakayori	DAIN:632	3859

7590 07/30/2003

PARKHURST & WENDEL, L.L.P.
Suite 210
1421 Prince Street
Alexandria, VA 22314-2805

EXAMINER

NAKARANI, DHIRAJLAL S

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 07/30/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

AS10

Office Action Summary

Application No.

09/835,080

Applicant(s)

SAKAYORI, KATSUYA

Examiner

D. S. Nakarani

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-9, 13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) 13 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's election of Group I, claims 1-10, in Paper No. 9 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Newly submitted claims 13 and 14 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The original Invention I, now claims 1-4 and 6-9, is directed to a laminate classified in class 428, subclass 458+. The newly submitted Invention III, claims 13 and 14, is directed to a method for producing an electronic circuit, and classified in class 216, subclass 13+.

Inventions I and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used in a materially different process such as process of making reflector or process of making packaging article.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 13 and 14 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-4 and 6-9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Shiotani et al (US Patent 5,741,598) for the reasons of record set forth in paragraph 13 of the Office Action mailed October 28, 2002 (Paper No. 8).

5. Applicant's arguments filed April 28, 2003 have been fully considered but they are not persuasive.

In response to rejection of claims 1-10 under 35 USC §102 (b) as anticipated by or, in the alternative, under 35 USC §103(a) as obvious over Shiotani et al (US Patent 5,741,598), applicant mainly argue that Shiotani et al do not disclose claimed storage modulus at at least the glass transition temperature which is an important factor for unexpected improvement of adhesive strength between a metal layer and an insulating layer. Applicant has found that the resin having a maximum storage modulus value of

10⁶ Pa at or above the glass transition temperature of the resin provide good adhesion to a metal layer independently of the resin composition itself. Applicant points to the comparative Examples in Table 1 and Fig. 4 for showing unexpected results.

These arguments are unpersuasive because there is no evidence showing that Shiotani et al's thermoplastic polyimide does not have claimed storage modulus at glass transition temperature or above. The data in Table 1 show that adhesion is higher when storage modulus is within claimed range and adhesion is lower when storage modulus is above the claimed storage modulus. However Shiotani et al's laminate show 90⁰ peel strength from 1900 to 2100 gms/cm (see Tables 1-3), which is higher than 1250 gms/cm shown in Table 1 of instant disclosure. Furthermore data shown in Table 1 of the instant disclosure shows expected results because it is a known fact that when viscosity of adhesive is lower it can penetrate into the rough surface and/or wet the substrate providing improved adhesion with the substrate surface compared to same adhesive having high viscosity.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner D. S. Nakarani whose telephone number is (703) 308-2413. The examiner can normally be reached on Tuesday-Friday from 7 a.m. to 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J. Thibodeau can be reached on (703) 308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

D.S. Nakarani/dh
July 29, 2003


D. S. NAKARANI
PRIMARY EXAMINER